

Title (en)

STEEL FOR DIE-CASTING DIE AND DIE-CASTING DIE

Title (de)

STAHL FÜR DRUCKGIESSFORM SOWIE DRUCKGIESSFORM

Title (fr)

ACIER POUR MOULE DE COULÉE SOUS PRESSION ET MOULE DE COULÉE SOUS PRESSION

Publication

EP 3569719 A1 20191120 (EN)

Application

EP 19174353 A 20190514

Priority

JP 2018094066 A 20180515

Abstract (en)

The present invention relates to a die-casting die, having a composition consisting of, in mass %: 0.16≤C≤0.26, 0.001≤Si≤0.80, 1.20≤Mn≤2.00, 2.41≤Cr≤2.73, 0.48≤Mo≤0.97, 0.003≤V≤0.28, 0.0005≤Al≤0.15, 0.0002≤N≤0.050, with the balance being Fe and unavoidable impurities, and having a hardness of 26 to 43 HRC and a thermal conductivity λ [W/m/K] measured by using a laser flash method at 25°C being 27.0≤ λ .

IPC 8 full level

C21D 9/00 (2006.01); **B22D 17/22** (2006.01); **C22C 38/00** (2006.01); **C22C 38/02** (2006.01); **C22C 38/04** (2006.01); **C22C 38/06** (2006.01); **C22C 38/20** (2006.01); **C22C 38/22** (2006.01); **C22C 38/24** (2006.01); **C22C 38/26** (2006.01); **C22C 38/28** (2006.01); **C22C 38/30** (2006.01); **C22C 38/32** (2006.01); **C22C 38/38** (2006.01); **C22C 38/40** (2006.01); **C22C 38/42** (2006.01)

CPC (source: CN EP KR US)

B22C 9/06 (2013.01 - CN); **B22D 17/2209** (2013.01 - EP KR); **C21D 9/0068** (2013.01 - EP); **C22C 38/001** (2013.01 - CN EP US); **C22C 38/002** (2013.01 - CN); **C22C 38/02** (2013.01 - CN EP US); **C22C 38/04** (2013.01 - CN EP US); **C22C 38/06** (2013.01 - CN EP US); **C22C 38/20** (2013.01 - CN EP US); **C22C 38/22** (2013.01 - CN EP KR US); **C22C 38/24** (2013.01 - CN EP US); **C22C 38/26** (2013.01 - CN EP US); **C22C 38/28** (2013.01 - CN EP US); **C22C 38/30** (2013.01 - CN EP KR US); **C22C 38/32** (2013.01 - CN EP US); **C22C 38/38** (2013.01 - CN EP KR US); **C22C 38/40** (2013.01 - EP); **C22C 38/42** (2013.01 - CN EP US); **C22C 38/44** (2013.01 - CN US); **C22C 38/46** (2013.01 - CN US); **C22C 38/48** (2013.01 - CN); **C22C 38/50** (2013.01 - CN); **C22C 38/52** (2013.01 - CN); **C22C 38/54** (2013.01 - CN); **C22C 38/58** (2013.01 - CN US); **C22C 38/60** (2013.01 - CN); **C21D 2211/005** (2013.01 - EP); **C21D 2211/008** (2013.01 - EP); **Y02P 10/20** (2015.11 - EP)

Citation (applicant)

- JP 2017043809 A 20170302 - DAIDO STEEL CO LTD
- JP 2018094066 A 20180621 - TOSHIBA LIFESTYLE PRODUCTS & SERVICES CORP

Citation (search report)

- [X] FR 2838137 A1 20031010 - USINOR [FR]
- [X] EP 0431557 A1 19910612 - DAIDO STEEL CO LTD [JP]
- [A] WO 03083153 A1 20031009 - USINOR [FR], et al
- [A] EP 0882808 A1 19981209 - THYSSEN FRANCE SA [FR]
- [A] JP H0250910 A 19900220 - NIPPON STEEL CORP

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

EP 3569719 A1 20191120; EP 3569719 B1 20220511; CN 110484813 A 20191122; JP 2019199634 A 20191121; JP 7167483 B2 20221109; KR 102253469 B1 20210517; KR 20190130979 A 20191125; TW 201947044 A 20191216; TW I728358 B 20210521; US 2019352751 A1 20191121

DOCDB simple family (application)

EP 19174353 A 20190514; CN 201910397654 A 20190514; JP 2018094066 A 20180515; KR 20190056871 A 20190515; TW 108116596 A 20190514; US 201916409467 A 20190510